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**ABSTRACT**

Panelists, discussants, and speakers at the 20 sessions of this three-day conference on telecommunications policy research are listed under the appropriate sessions in this conference program, as well luncheon and dinner speakers. Topics addressed by the various sessions include: federal regulatory policies and technical change in telecommunications (keynote speaker, Morris Tanenbaum); international comparisons (Europe, Pacific Basin); alternatives to rate of return regulation; future of cable television; capital recovery; media concentration and the First Amendment; standards and standardization; communication and future employment trends; audience research; developing a national information infrastructure; broadcast deregulation; telecommunications and growth in developing countries; impacts of telephone deregulation; the changing scope and structure of telecommunications and its effect on government and industrial organizations; competition in telecommunications; state regulatory strategies; subsidies in telephone pricing; research and development in a post-divestiture world; future of the telecommunications network; and policy development in telecommunications. The text of the keynote address presented at the opening plenary session by Morris Tanenbaum, the vice-chairman of AT&T, is included in this document. (CGD)

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# **FIFTEENTH ANNUAL TELECOMMUNICATIONS POLICY RESEARCH CONFERENCE**

**AIRLIE HOUSE  
AIRLIE, VIRGINIA  
SEPTEMBER 27, 1987**

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# **FIFTEENTH ANNUAL TELECOMMUNICATIONS POLICY RESEARCH CONFERENCE**

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# **SUNDAY, SEPTEMBER 27, 1987**

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## **FIFTEENTH ANNUAL TELECOMMUNICATIONS POLICY RESEARCH CONFERENCE**

**Airlie House  
Airlie, Virginia  
September 27-30, 1987**

### **PROGRAM**

**3:00- 6:30 PM    REGISTRATION (*Foxes Den*)**

**5:15- 6:15 PM    RECEPTION/CASH BAR (*Garden*)**

**6:30- 8:00 PM    DINNER (*Airlie Room*)**

**WELCOMING REMARKS BY EDWARD ZAJAC  
15th ANNUAL ORGANIZING CHAIR  
(University of Arizona)**

# MONDAY, SEPTEMBER 28, 1987

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- 7:30- 8:30 AM BREAKFAST (*Airlie Room*)
- 8:30- 9:45 AM OPENING PLENARY: FEDERAL REGULATORY POLICIES AND TECHNICAL CHANGE IN TELECOMMUNICATIONS  
**Chair:**  
Gerald Faulhaber (*University of Pennsylvania*)  
**SPEAKER:**  
Morris Tanenbaum (*Vice Chairman, AT&T*)
- 9:45-10:00 AM CONFERENCE BREAK
- 10:00-11:45 AM INTERNATIONAL COMPARISONS, I (*Europe*)  
**Chair:**  
Eli Noam (*Columbia University, New York Public Service Commission*)  
**Panelists:**  
Jeremy Tunstall (*University of London*)  
Ernst-Joachim Mestmaeker (*Max Planck Institute, Hamburg*)  
William Melody (*UK Economic & Social Research Council*)  
**Discussants:**  
Eberhard Witte (*Munchener Kreis, University of Munich*)  
Martin Elton (*Columbia University*)
- 10:00-11:45 AM ALTERNATIVES TO RATE OF RETURN REGULATION  
**Chair:**  
Ronald Braeutigam (*Northwestern University*)  
**Panelists:**  
David Sibley (*Bellcore*)  
Ingo Vogelsong (*University of Boston*)  
Peter Linhart and Roy Radner (*AT&T Bell Laboratories*)  
**Discussants:**  
Victor Goldberg, Ronald Braeutigam (*Northwestern University*)
- 10:00-11:45 AM FUTURE OF CABLE TV  
**Chair:**  
Dan Brenner (*University of California at Los Angeles*)  
**Panelists:**  
Frank Lloyd, (Mintz, Levin, Ferris, Cohn, Glovsky, & Popeo)  
Nicholas Miller (*Miller & Young*)  
John Woodbury (*Federal Trade Commission*)  
**Discussant:**  
Charles Firestone (*Mitchell, Silberberg and Knupp*)
- 12:00- 1:15 PM LUNCH (*Airlie Room*)  
**LUNCHEON SPEAKER:** Charles Rule  
Assistant Attorney General, Anti-Trust Division, Department of Justice

# MONDAY, SEPTEMBER 28, 1987

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## 1:30- 3:15 PM CAPITAL RECOVERY

### Chair:

Charles Jackson (*Shooshan & Jackson*)

### Panelists:

John Panzar (*Northwestern University*)

✧ Charles Jackson, Susan Leisner and Jeffrey Rohlf's (*Shooshan & Jackson*)

Gerald Brock and Kenneth Moran (*FCC*)

### Discussant:

✧ Gail Garfield Schwartz (*New York Public Service Commission*)

## 1:30- 3:15 PM MEL A CONCENTRATION AND THE FIRST AMENDMENT

### Chair:

Stuart N. Brotman (*Senior Management Adviser/Communications*)

### Panelists:

T. Baron Carter (*Boston University*)

✧ Joseph Foley (*Ohio State University*)

Mark Nadel (*Office of Technology Assessment*)

### Discussant:

Bill Pardue (*Wiley, Rein & Fielding*)

## 1:30- 3:15 PM STANDARDS AND STANDARDIZATION

### Chair:

Stan Besen (*RAND Corporation*)

### Panelists:

✧ Sanford V. Berg (*University of Florida*)

✧ Paul A. David (*Stanford University*)

✧ Joseph Farrell (*University of California, Berkeley*)

✧ Garth Saloner (*MIT*)

### Discussants:

Lawrence J. White (*New York University, Federal Home Loan Bank Board*);

Peter Temin (*MIT*)

Almarin Phillips (*University of Pennsylvania*)

## 3:15- 3:30 PM CONFERENCE BREAK

## 3:30- 5:15 PM INTERNATIONAL COMPARISONS II (*Pacific Basin*)

### Chair:

Eli Noam (*Columbia University, New York Public Service Commission*)

### Panelists:

Alwi Dahlan (*Ass. Minister of State for Population and Environment Interaction, Lecturer, University of Indonesia*)

✧ Donald Lamberton (*University of Queensland, Australia*)

Vincent Lowe (*Universiti Sain, Malaysia*)

# MONDAY, SEPTEMBER 28, 1987

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**Discussants:**

Peter Cowhey (*University of California at San Diego*)  
Kai Yuen Wang (*Visiting Scientist, IBM*)  
Thomas J. Watson Research Center, Assistant Director (Research),  
Institute of Systems Science, National University of Singapore,  
Member of Parliament, Member of Information and Committees)

3:30- 5:15 PM COMMUNICATION & FUTURE EMPLOYMENT TRENDS

**Chair:**

Christopher Sterling (*George Washington University*)

**Panelists:**

✧ Richard Belous (*The Conference Board*)  
✧ Joseph Anderson and Suzanne Harris (*ICF, Inc.*)  
✧ Julie Gorte (*Office of Technology Assessment*)

**Discussants:**

George Kohl (*Communications Workers of America*)  
Oliver Smoot (*Computer and Business Equipment Manufacturers Association*)

3:30- 5:15 PM AUDIENCE RESEARCH

**Chair:**

James Webster (*Northwestern University*)

**Panelists:**

✧ Philip A. Harding (*CBS/Broadcast Group*)  
✧ Mark R. Levy (*University of Maryland*)  
Edward Cohen (*National Association of Broadcasters*)  
Julian Shepard (*Heron, Burchette, Ruckert & Rothwell*)

**Discussant:**

John F. Kamp (*FCC*)

5:30- 6:30 PM CASH BAR (*Garden*)

(*BOARD OF DIRECTORS MEETING—Private*)

6:30- 8:00 PM DINNER (*Airlie Room*)

DEVELOPING A NATIONAL INFORMATION INFRASTRUCTURE

**DINNER SPEAKER: ROBERT KAHN**

(*President, Corporation For National Research Initiatives*)

8:30 PM

Meeting of New and Past Organizing Committee, and Board of Directors  
PUBLIC MEETING

# TUESDAY, SEPTEMBER 29, 1987

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7:30- 8:15 AM BREAKFAST (*Airlie Room*)

8:15- 9:45 AM OPENING PLENARY: BROADCAST DEREGULATION

**Chair:**

Robert Entman (*Duke University*)

**Panelists:**

- Russell Neuman (*N.IT*)

Ray Blumler (*University of Leeds*)

X Carolyn Spicer (*University of Southern California*)

Robert Entman (*Duke University*)

**Discussant:**

Diane Killory (*Chief Counsel, FCC*)

9:45-10:00 AM CONFERENCE BREAK

10:00-11:45 AM TELECOMMUNICATIONS AND GROWTH IN DEVELOPING COUNTRIES

**Chair:**

Heather Hudson (*University of Texas*)

**Panelists:**

X Lynn York and Heather Hudson (*University of Texas*)

X Christopher Sullivan (*University of Washington*)

Joseph Pelton (*INTELSAT*)

Marcellus Snow (*University of Hawaii*)

John Mayo (*University of Florida*)

10:00-11:45 AM IMPACTS OF TELEPHONE DEREGULATION

**Chair:**

Robert La Blanc (*La Blanc Associates*)

**Panelists:**

X Richard Wolf, Edgar Gentle, Ann Wolf, and Elizabeth LaBlanc  
(*La Blanc Associates*)

X Gordon Ray (*NEC America*)

**Discussants:**

Jack MacDonald (*Contel, Inc.*)

Tom Whitehead (*National Exchange, Inc.*)

Jerry Mayfield (*DMW Inc.*)

10:00-11:45 AM THE CHANGING SCOPE AND STRUCTURE OF TELECOMMUNICATIONS  
AND ITS EFFECT ON GOVERNMENT AND INDUSTRIAL  
ORGANIZATIONS

**Chair:**

Christine Borgman (*University of California, Los Angeles*)

**Panelists:**

- Hajime Oniki (*Osaka University, Japan*)

- Terry Curtis (*California State University at Chico*)

Claudio Ciborra (*University of Trento, Italy*)

12:00- 1:15 PM LUNCH (*Airlie Room*)

COMPETITION IN TELECOMMUNICATIONS

**LUNCHEON SPEAKER:**

The Honorable Patricia Diaz Dennis (*FCC Commissioner*)



# TUESDAY, SEPTEMBER 29, 1987

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1:30- 3:15 PM PLENARY: STATE REGULATORY STRATEGIES

**Chair:**

V. Louise McCarren (*Former Chairman, Vermont Public Service Commission*)

**Panelists:**

X Gail Garfield Schwartz (*New York Public Service Commission*)  
Ellen S. Deutsch (*Kadison, Pfaelzer, Woodward, Quinn & Rossi*)  
Bailey Geeslin (*NYNEX*)

3:15- 3:30 PM CONFERENCE BREAK

3:30- 5:15 PM SUBSIDIES IN TELEPHONE PRICING

**Chair:**

Jules Joskow (*National Economic Research Association*)

**Panelists:**

X Alex Belinfante (*FCC*)  
X Perry Pockros (*State of Illinois, Office of Public Counsel*)  
Peyton Wynns (*FCC*)  
X Joe Fuhr (*Widener University*)  
Larry Darby (*Shearson & Lehman Brothers*)

3:30- 5:15 PM R&D IN A POST-DIVESTITURE WORLD

**Chair:**

Roger Noll (*Stanford University*)

**Panelists:**

X David Mowery (*Carnegie-Mellon University*)  
A. Michael Noll (*University of Southern California*)  
X Robert Harris (*University of California at Berkeley*)  
David Teece (*University of California at Berkeley*)

**Discussant(s):**

Richard Gilbert (*University of California at Berkeley*)  
Molly MaCauley (*Resources for the Future*)

3:30- 5:15 PM FUTURE OF THE TELECOMMUNICATIONS NETWORK

**Chair:**

Dean Gillette (*Claremont*)

**Panelists:**

Anthony Rutowski (*Telecommunications, MIT*)  
Eli Noam (*Columbia University*)  
Mitchell Moss (*New York University*)

5:15- 6:30 PM CASH BAR (*Garden*)

6:30- 8:15 PM DINNER (*Airlie Room*)

POLICY DEVELOPMENT IN TELECOMMUNICATIONS

X **DINNER SPEAKER:** Alfred Sikes

(*Assistant Secretary for Telecommunications and Information/NTIA*)

# TUESDAY, SEPTEMBER 29, 1987

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8:30- 9:15 PM    PLENARY: FUNDERS' PANEL

**Chair:**

Edward Zajac (*University of Arizona*)

**Panelists:**

Larry Rosenberg (*National Science Foundation*)

Paula Newberg (*John R. & Mary Markle Foundation*)

Roger Noll (*Stanford University*)

Henry Celler (*Washington Center for Public Policy Research—Duke University*)

9:15 PM            MEETING OF ADVISORY COMMITTEE AND SIXTEENTH ANNUAL  
ORGANIZING COMMITTEE MEMBERS

# WEDNESDAY, SEPTEMBER 30, 1987

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7:30- 8:15 AM BREAKFAST (*Airlie Room*)

8:15-10:00 AM COMPUTER AND COMMUNICATIONS SECURITY

**Chair:**

Charles Wilk (*Office of Technology Assessment*)

**Panelists:**

Dennis Branstad (*National Bureau of Standards*)

Cipher Deavors (*Kean College*)

\* Richard I. Folis (*Geneva Management Group*)

William Murray (*Ernst & Whitney*)

8:15-10:00 AM REGULATION, DEREGULATION & COMPETITION

**Chair:**

Jeffery Rohlf (*Shooshan & Jackson*)

**Panelists:**

\* Neal Stolleman (*GTE*)

\* David Allen (*MIT*)

\* Paul Teske (*Princeton University*)

8:15-10:00 AM COMPETITION IN THE LOCAL LOOP

**Chair:**

William Taylor (*Bellcore*)

**Panelists:**

Dennis Weisman (*Southwestern Bell*)

\* Frank Ferrante and Marvin Sirbu (*Carnegie Mellon*)

\* Glenn Woroch (*GTE*)

\* Steve Parsons (*Criterion, Inc.*)

10:00-10:15 AM CONFERENCE BREAK

10:15-12:00 PM PLENARY: INTERNATIONAL TRADE ISSUES

**Chair:**

Herbert Dordick (*Temple University*)

**Panelists:**

\* Herbert Dordick (*Temple University*)

\* Michael Borrus and Francois Bar (*University of California at Berkeley*)

Jonathan Aronson (*University of Southern California*)

**Discussant:**

Susan Schwab (*Legislative Assistant to Senator John Danforth, R-MO*)

12:00- 1:15 PM LUNCH (*Airlie Room*)

# NOTES

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Airlie House  
Telecommunications Policy  
Research Conference  
Airlie, Virginia  
September 28, 1987  
Morris Tanenbaum

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TO THE EDUCATIONAL RESOURCES  
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Thank you Gerry (Faulhaber).

Your invitation to open this conference is a special honor and a particular challenge. The honor arises from the distinction of the participants at these conferences and those who have filled this opening spot before me, and the challenge by recognition of the tremendous range and diversity of issues that mark the telecommunications industry today. Your program is ample evidence of that. It is instructive, for example, to note the prominence that developments overseas are given in your agenda this year -- and rightly so. The richness and range of the agenda does indeed reflect an industry that is very alive. Full of change. Full of opportunity for more change. And one which, in a strange way makes regulatory policy discussion both more relevant...and less relevant.

As you know, in physics, the term inertia has a precise and somewhat broader connotation than the everyday use of the word. As in common usage, it describes the fact that, if an object is at rest, it will remain at rest unless a force is applied. But, in physics, it also means that if an object is moving, it will keep moving at the same speed and in the same direction unless, again, force is applied.

In that second sense, telecommunication regulation has for some years now demonstrated an extraordinary inertia in spite of the application of large forces.

Of course, this is not the first instance when the laws of man appear to defy the laws of physics and I am not about to suggest that that will change. However, I do suggest that in view of the major forces of competition and industry restructuring, it is time for regulation to change in speed and direction much more dramatically than it has in the past.

Hindsight, at a minimum, tells us that these forces have been active with increasing strength -- from at least the 1960's -- and that "regulation," after decades of unperturbed speed and direction, has been greatly stressed while responding only slowly with a change in course.

A good many of you are more than familiar with that course. You have been companions along the way. As observers and commentators. As participants. You have helped shape and map regulation and its path. And you are well aware of the present forces and stresses.

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The telecommunications marketplace today is, with a few notable exceptions, highly competitive. The concept of natural monopoly which once blanketed the entire marketplace has been swept from the areas in which AT&T operates by technological, regulatory and judicial forces. What had been the rule is now viewed as the exception; the exception the rule.

We have witnessed the rising of marketplace forces and the responses to them. The marketplace is increasingly viewed as the preferred instrument for drawing forth and distributing telecommunications goods and services, setting the price, quality and driving the pace of innovation. Regulation is increasingly viewed:

- as a transition medium to assure orderly movement to a free marketplace.
- and, with growing frequency, as a "safety net," to assure that basic public interest goals continue to be served; goals mandated by the Communications Act of 1934.

Though times and technology have profoundly changed since the Act was written, it continues to invest the FCC with fundamental responsibility for the public interest and the advancement of the industry. But as the FCC pointed out, in its recent Notice Of Proposed Rulemaking, it has a mix of tools with which to fulfill that responsibility, including competition; market tools as well as traditional regulatory tools.

The fact that market forces are supplanting regulatory forces is not exactly a shocking notion. The competitive marketplace is, after all, the American way. Just as nature abhors a vacuum, Americans abhor monopoly -- at least Americans born since the time of Teddy Roosevelt! Government regulation of franchised monopolies has been an uncomfortable compromise with the American ethos. America generally views monopoly as an evil; and it tolerates regulation as a "necessary" evil -- an imperfect substitute for competition where competition cannot work.

I find it personally interesting to observe that the movement to reliance on the marketplace in telecommunications -- although driven by the American ethos and economic theory, and implemented by regulatory decisions and judicial actions -- was, in fact, enabled by the advance of technology.

It is not over-reaching to say that individuals such as Harold Friis, Walter Brattain, William Shockley, John Bardeen and their colleagues -- all Bell Laboratories scientists -- set afoot the technological forces that did more than revolutionize the means of telecommunications. They led ultimately to new market and industry structures.

Friis and his colleagues in the 1930's did the seminal work in microwave transmission. As a consequence, long distance transmission was no longer tethered to right of way. That technology opened new opportunities and set the stage for the long distance competition we know today.

And, of course, the transistor -- the work of Brattain, Shockley and Bardeen -- was the seed of the computer revolution, which tremendously expanded the scope of electronics and led to the perplexing problem for regulators of computers that switch and switches that compute.

The press of these technologies, and their progeny, undermined the natural monopoly basis for long distance telecommunications and customer premise products, eventually forced open regulatory doors, toppled barriers to market entry and led to reshaping of regulatory philosophy as regulators saw new, wider horizons for the industry.

Looking back, the industry landscape is dotted with significant monuments: the Above 890 Decision, Carterfone, the "open skies" decision, the Specialized Common Carrier Decision, Computer Inquiries I, II and III and a variety of legal decisions and actions, most notable being the AT&T Modified Final Judgment of 1982.

The thin trickle of regulatory experiments -- such as MCI's Chicago-to-St. Louis private line service -- widened into a broad stream and the long distance market was soon awash with competitors.

The prevailing regulatory stance was: foster competition wherever possible. Encourage and shelter new entrants. Give them a running start. Restrain the traditional carriers, particularly the Bell System.

The result was a highly managed market. Regulated competition. I suspect that even the most ardent supporters of the new regulatory policies wondered, at times, whether the worst of both worlds had been created.

Certainly the Second Computer Inquiry and the subsequent decision in 1980 reflected concern on the part of the FCC over the restraints on a major player in an increasingly competitive telecommunications market. That decision and regulatory decisions that followed the Modified Final Judgment provided a form of relaxation of AT&T regulation.

But I think it is worth noting that, until fairly recently, the focus has been on the structure of the marketplace. Were the competitive seedlings taking hold and thriving? The focus was on the structure of the Bell System -- first in bifurcation between the regulated and unregulated parts of the Bell System and then separation between the Regional Bell Companies and the new AT&T -- to permit a degree of competitive freedom while guarding against cross-subsidy. Regulatory reform was largely a matter of removing -- carefully and gradually -- the most onerous procedural and structural restraints. And legal action brought a more drastic structural change.

What remained largely unexamined and undisturbed was the basic premise of regulation: rate of return, rate base regulation.

Although such regulation was a product of the 1900's, it had somehow assumed the status of a natural law.

Now this basic premise has been squarely challenged. Former Chairman of the FCC, Mark Fowler, was among the first to raise the issue seriously. And Chairman Patrick and his Commission have taken that initiative forward and formulated the FCC's proposal to eliminate regulation of profits and shift to regulation of prices -- suggesting price caps as the most promising mechanism.

While this represents yet another point on the continuum toward an unregulated marketplace, it is also a turning point. It is a fundamental change in regulatory approach.

It affirms the marketplace as the prime regulator -- even of AT&T. It affirms that the telecommunications market -- at least parts of it -- is more like than unlike the marketplace generally. And it recognizes the fact that rate of return regulation is not only anachronistic but it also impedes rather than promotes a vital competitive marketplace. At the same time, the proposal maintains the FCC's ability to offset marketplace failures.

In short, the new regulatory thrust recognizes that quantitative and qualitative changes have taken place in the marketplace that require quantitative and qualitative changes in regulatory policy.

The fundamental change is the regulators' recognition that in many areas the competitive marketplace is not in a state of "becoming". It is here.

The sum of the evidence, I believe, clearly indicates that a highly competitive long distance marketplace is a reality.

For example, there are some 560 long distance suppliers, 200 or more of whom offer equal access in at least one jurisdiction. Every state in the nation has at least three such competitors. And 43 states have at least five.

That's just a part of the picture.

Three quarters of American consumers have an "equal access" choice of at least two long distance companies, and 90 percent of consumers know they have a choice among long distance companies.

The choices are real. The major carriers have built substantial capacity, and more is on the way. MCI, once called a "shoestring operation," by an FCC Examiner when it first applied for its Chicago-St. Louis route, has a nationwide network of 485 million circuit miles -- and it's growing. Of course it just purchased RCA Globcom -- so it is expanding its international activities and will have the majority market share of international record carrier services. U.S. Sprint is not far behind with a 200 million circuit mile domestic network -- and plans to expand.

The latest technology is available and used by all carriers. For example, they are installing and expanding their fiber optic networks. In fact, according to the announcement of the major carriers, there will be



more than 60,000 route miles of high capacity fiber cable in the U.S by the end of this year. That includes 15,000 miles owned by AT&T, 25% of the total. Michael Porter of Harvard predicts that by 1990 demand will fill only about a quarter of the existing capacity.

The point is, competitors are numerous, customers have choices, and these are realistic choices. No carrier has a stranglehold on customers -- they can go elsewhere or build their own facilities. And they have done both.

AT&T -- albeit the largest supplier today by a significant margin -- does not have the kind of monopoly market power that would permit a firm to control prices and entry. AT&T's market share, no matter how you measure it, continues to decline. The equation that market share equals market control -- never a good economic theory -- is again being demonstrated as a false theorem in the real marketplace.

In surveying the changes that have taken place in the level of competition, I am reminded that when atomic energy was discovered, Einstein remarked, and I quote, "everything changed...but our thinking".

Virtually everything had changed in long distance telecommunications except the thinking with respect to regulating AT&T's prices. But now that thinking appears to be changing. It has already changed in the twelve states that have moved away from rate of return regulation and is changing in eighteen additional states that have allowed significant pricing flexibility.

The FCC price cap proposal will find its share of detractors. Some free market advocates will see it as too timid. Others, who believe that any movement from regulation to competition threatens consumers, will likely oppose it strenuously. Some have already done so. It is especially interesting to observe the reaction of some consumer organizations who either do not believe that consumers have choice today or must otherwise believe that competition is not in the best interests of consumers.

It seems to me that the FCC's proposal needs to meet some basic tests. Let me suggest four questions that should be answered:

- does the proposal address squarely the flaws of the current regulatory approach?
- does it accelerate the progress of the industry toward a competitive marketplace by releasing new competitive energy in the marketplace that will deliver the benefits of competition: price, quality, innovation, responsiveness to customer needs and a strong industry in an increasingly international marketplace?
- does the proposal provide an adequate safety net that assures that the FCC can continue to serve the Communications Act and retain regulatory discretion during an adequate transition period?

AT&T also has a question to answer. Does the promised flexibility to compete balance the financial risk AT&T will face under price cap regulation?

Let me make some observations on each of those questions.

First, does the proposal address the flaws of rate of return regulation?

No regulatory scheme is without flaws and neither for that matter does the unregulated competitive marketplace function perfectly.

The flaw in rate of return regulation can be summed up in one phrase: the balance of incentives.

It rewards growth in the rate base with little or no reward for efficiencies.

It is onerous and expensive in its procedural and cost justification requirements. It encourages competition by legal and regulatory ploy. It encourages the employment of lawyers, accountants and regulatory experts not R&D, marketing and sales forces.

No matter how carefully the authorized rate of return is set, what could be more deadening to entrepreneurial spirit and striving for greater efficiencies than a system that says: Once having achieved the authorized rate, there is no reward for the risk of further effort or innovation.

The FCC proposal eliminates that major flaw -- and promises some thinning out of the administrative, regulatory and legal thicket and reduction of their costs.

No regulatory approach will be free of costs, procedures and legal and regulatory challenges. But the FCC proposal does promise a more streamlined approach. For example, the presumption of the lawfulness of tariffs whose economic value can then be tested in the marketplace rather than the hearing room.

The second question. Does the proposal accelerate progress toward a freely competitive marketplace and thus does it promise to provide more of the benefits of competition: price, quality, innovation, etc?

Addressing that question in a few minutes is a tall order.

I can supply an answer only if you will share with me the assumption that competition **IS** the best means of providing the best prices, the highest quality, the most innovation, increased variety of choice, etc. If you accept that proposition, then you must agree that enabling one of the major players in the industry the opportunity to reap the rewards like everyone else will raise the level and vitality of the entire marketplace. Consumers will benefit. Unlike rate of return regulation and earnings caps, the FCC price cap proposal provides more positive incentives.

Moreover, experience provides evidence to support that claim. The FCC proposal offers new freedom for the company to introduce innovative services without the unseemly delays such as we encountered in offering our Reach Out America discount plan. It took a year for us to get the plan approved. We have had similar experiences with a number of other offerings.

One of the characteristics of a highly competitive marketplace is the demand for short competitive response times. When a major competitor is forced into slow motion -- while the rest of the players are operating in real time, the marketplace will not achieve its potential to deliver consumer benefits.

One of the key concerns is the question of technological advance and innovation. It is of special interest to me, in part, because of my years in the technology side of our business. Research, development and product or service innovation is one of the riskiest investments that any business makes. In a competitive marketplace only a fraction of new product or service introductions will succeed. Those that succeed must achieve their full profit potential to recover the costs of those that fail. And because of the speed of technological change, unnecessary delay in introduction greatly increases the risk. The FCC proposal offers strong incentives for innovation -- certainly from the standpoint of AT&T and as a stimulant to the industry at large.

If realized, those incremental rewards create deeper sources of funds to finance more research and development, an ascending spiral of benefit to all users.

Even within the confines of the current regulatory system, I can testify that competition has forced the AT&T company to tighten the linkage between sales, marketing, manufacturing, design and development. But the consumer cannot be assured of the full and timely benefits of all our capabilities and their stimulation to the industry at large as long as we must slog our way through today's cumbersome regulatory process.

There's a pricing analog that applies to technical innovation. We have seen instances where regulation has kept prices artificially high, and they have served as an umbrella under which other companies took shelter. The consumer was not getting the best price the marketplace could deliver. In similar fashion, regulatory rules should not keep the pace of innovation artificially slow. The spur of the marketplace should not be blunted.

In short, this proposal puts the right incentives in place and removes obstacles to innovation. I believe that is critical...not just for AT&T. It is critical for the U.S. telecommunications industry. For there is no blinking the fact that, like much of American industry, we are seeing our domestic market increasingly penetrated by foreign suppliers. The numbers tell the story. In 1981 we enjoyed nearly a billion dollar surplus in telecommunications equipment trade. In 1986, we ran a deficit of almost \$2 billion. Exchange rates. Tariff barriers. Politics. All of these were

factors. But so was the state of the U.S. telecommunications marketplace which was not operating at full throttle -- and not able to deliver its very best because of uncertainty and regulatory "drag".

To the third question. Does the proposal provide a safety net that assures the purposes of the Communications Act and retain regulatory discretion during an adequate transition period?

I've said little specifically to this point about prices and price caps. But this is where consumers are -- and should be -- very much concerned. Certainly they want quality service. They want widely available service. They want new and better products and services with the freedom to choose. And the cost of that quality and variety is an important factor in determining availability and freedom of choice. And as much as I might wish it otherwise, consumers care little about AT&T's profits, unless they feel prices are too high and that they have no alternatives for a service they consider necessary.

It is also worth noting that consumers have had some mixed experience in other industries during the transition from regulation to a competitive market. Ask airline customers and you will quickly get an earful. While many consumers have received great cost benefits, questions of safety and quality of service have arisen, and today even questions of the permanence of the cost benefits are arising.

Sensitivity to these concerns are clearly visible in the FCC's proposal. It is not a proposal for deregulation but instead for a different form of regulation.

It permits marketplace forces to affect prices more directly, places limits on price increases, and make it clear that the FCC can and will step in if the marketplace does not work adequately. The FCC's statutory responsibilities have not changed and the Commission obviously recognizes that.

Some have contended that the proposed regulatory reform will spell the end of the long distance price declines that consumers have enjoyed over the past few years. Some 34 percent reduction since 1984.

Such dramatic reductions will not likely continue indefinitely since they have, in large measure, been driven by the decline in access charges. The form of regulation, however, whether it's rate base, rate of return or price cap is not the relevant issue.

Further, under the FCC proposal the price cap is sensitive to access charge levels and would be lowered as access charges decline.

Moreover, it is proposed that AT&T will be required to flow through to consumers a factor based on increased productivity. That is related to the fourth question I posed and is a risk -- and an added incentive -- to AT&T. If our productivity gains are insufficient, we will suffer the effects. Our rewards will be directly related to increases in productivity. That tends to get lost in the discussions and the new kind of

risk that we assume is a matter of real concern to AT&T. Indeed, we might question why we should be held to a tighter standard than that expected of all competitive businesses that contribute to the consumer price index.

Nor does the proposal threaten the availability of service nationwide. Today, we have nationwide average rates. The proposal requires that, tomorrow, we will have average rates, so long as access charges are not significantly deaveraged. And removal of service will continue to require explicit regulatory approval. The FCC is not going out of business. Some people forget that. We don't!

Nor should there be concern that quality will suffer because of the shift from rate of return regulation to price caps.

We are convinced by our own experience -- and by observing other industries -- that quality is a major consumer value. That is especially true in communications for all of our customers and especially for our largest business customers who consider their telecommunications as a lifeline and strategic asset in their businesses. It would be self defeating for us to compromise on quality. We have no captive market. Customers would simply leave for other suppliers whose advertising increasingly emphasizes quality and reliability. We believe quality is a competitive edge. We don't plan to surrender it. Moreover, the FCC will continue to oversee the quality of service as part of its fundamental responsibilities.

Are there risks? I'm sure there are. As I've noted, there are risks for AT&T, since price caps remove the downside protections of rate of return regulation.

The risk for consumers is that the marketplace will not do its job -- and if it fails that the FCC will not fulfill its responsibilities, and that the Congress will also turn its back. With those powerful consumer protections, the risk is small but the promise is large -- a more vital industry to serve customers.

Clearly a proposal as major as this one needs the study and discussion that the Notice of Proposed Rulemaking provides. But the direction is right. It needs to be tried. I believe it will help propel the industry to new high levels of achievement and contribution to customers and to the economy at large.

Thank you.